

CONTENTS

THE LIFE AND TIMES OF A CLINICAL MICROBIOLOGIST, <i>Albert Balows</i>	1
ROLE OF CYTOTOXIC T LYMPHOCYTES IN EPSTEIN-BARR VIRUS-ASSOCIATED DISEASES, <i>Rajiv Khanna and Scott R. Burrows</i>	19
BIOFILM FORMATION AS MICROBIAL DEVELOPMENT, <i>George O'Toole, Heidi B. Kaplan, and Roberto Kolter</i>	49
MICROBIOLOGICAL SAFETY OF DRINKING WATER, <i>U. Szewzyk, R. Szewzyk, W. Manz, and K.-H. Schleifer</i>	81
THE ADAPTIVE MECHANISMS OF <i>TRYPANOSOMA BRUCEI</i> FOR STEROL HOMEOSTASIS IN ITS DIFFERENT LIFE-CYCLE ENVIRONMENTS, <i>I. Coppens and P. J. Courtois</i>	129
THE DEVELOPMENT OF GENETIC TOOLS FOR DISSECTING THE BIOLOGY OF MALARIA PARASITES, <i>Tania F. de Konig-Ward, Chris J. Janse, and Andrew P. Waters</i>	157
NUCLEIC ACID TRANSPORT IN PLANT-MICROBE INTERACTIONS: THE MOLECULES THAT WALK THROUGH THE WALLS, <i>Tzvi Tzfira, Yoon Rhee, Min-Huei Chen, Talya Kunik, and Vitaly Citovsky</i>	187
PHYTOPLASMA: PHYTOPATHOGENIC MOLLICUTES, <i>Ing-Ming Lee, Robert E. Davis, and Dawn E. Gundersen-Rindal</i>	221
ROOT NODULATION AND INFECTION FACTORS PRODUCED BY RHIZOBIAL BACTERIA, <i>Herman P. Spaink</i>	257
ALGINATE LYASE: REVIEW OF MAJOR SOURCES AND ENZYME CHARACTERISTICS, STRUCTURE-FUNCTION ANALYSIS, BIOLOGICAL ROLES, AND APPLICATIONS, <i>Thiang Yian Wong, Lori A. Preston, and Neal L. Schiller</i>	289
INTERIM REPORT ON GENOMICS OF <i>ESCHERICHIA COLI</i> , <i>M. Riley and M. H. Serres</i>	341
ORAL MICROBIAL COMMUNITIES: BIOFILMS, INTERACTIONS, AND GENETIC SYSTEMS, <i>Paul E. Kolenbrander</i>	413
ROLES OF THE GLUTATHIONE- AND THIOREDOXIN-DEPENDENT REDUCTION SYSTEMS IN THE <i>ESCHERICHIA COLI</i> AND <i>SACCHAROMYCES CEREVISIAE</i> RESPONSES TO OXIDATIVE STRESS, <i>Orna Carmel-Harel and Gisela Storz</i>	439
RECENT DEVELOPMENTS IN MOLECULAR GENETICS OF <i>CANDIDA ALBICANS</i> , <i>Marianne D. De Backer, Paul T. Magee, and Jesus Pla</i>	463

CONTENTS

THE LIFE AND TIMES OF A CLINICAL MICROBIOLOGIST, <i>Albert Balows</i>	1
ROLE OF CYTOTOXIC T LYMPHOCYTES IN EPSTEIN-BARR VIRUS-ASSOCIATED DISEASES, <i>Rajiv Khanna and Scott R. Burrows</i>	19
BIOFILM FORMATION AS MICROBIAL DEVELOPMENT, <i>George O'Toole, Heidi B. Kaplan, and Roberto Kolter</i>	49
MICROBIOLOGICAL SAFETY OF DRINKING WATER, <i>U. Szewzyk, R. Szewzyk, W. Manz, and K.-H. Schleifer</i>	81
THE ADAPTIVE MECHANISMS OF <i>TRYPANOSOMA BRUCEI</i> FOR STEROL HOMEOSTASIS IN ITS DIFFERENT LIFE-CYCLE ENVIRONMENTS, <i>I. Coppens and P. J. Courtois</i>	129
THE DEVELOPMENT OF GENETIC TOOLS FOR DISSECTING THE BIOLOGY OF MALARIA PARASITES, <i>Tania F. de Konig-Ward, Chris J. Janse, and Andrew P. Waters</i>	157
NUCLEIC ACID TRANSPORT IN PLANT-MICROBE INTERACTIONS: THE MOLECULES THAT WALK THROUGH THE WALLS, <i>Tzvi Tzfira, Yoon Rhee, Min-Huei Chen, Talya Kunik, and Vitaly Citovsky</i>	187
PHYTOPLASMA: PHYTOPATHOGENIC MOLLICUTES, <i>Ing-Ming Lee, Robert E. Davis, and Dawn E. Gundersen-Rindal</i>	221
ROOT NODULATION AND INFECTION FACTORS PRODUCED BY RHIZOBIAL BACTERIA, <i>Herman P. Spaink</i>	257
ALGINATE LYASE: REVIEW OF MAJOR SOURCES AND ENZYME CHARACTERISTICS, STRUCTURE-FUNCTION ANALYSIS, BIOLOGICAL ROLES, AND APPLICATIONS, <i>Thiang Yian Wong, Lori A. Preston, and Neal L. Schiller</i>	289
INTERIM REPORT ON GENOMICS OF <i>ESCHERICHIA COLI</i> , <i>M. Riley and M. H. Serres</i>	341
ORAL MICROBIAL COMMUNITIES: BIOFILMS, INTERACTIONS, AND GENETIC SYSTEMS, <i>Paul E. Kolenbrander</i>	413
ROLES OF THE GLUTATHIONE- AND THIOREDOXIN-DEPENDENT REDUCTION SYSTEMS IN THE <i>ESCHERICHIA COLI</i> AND <i>SACCHAROMYCES CEREVISIAE</i> RESPONSES TO OXIDATIVE STRESS, <i>Orna Carmel-Harel and Gisela Storz</i>	439
RECENT DEVELOPMENTS IN MOLECULAR GENETICS OF <i>CANDIDA ALBICANS</i> , <i>Marianne D. De Backer, Paul T. Magee, and Jesus Pla</i>	463

FUNCTIONAL MODULATION OF <i>ESCHERICHIA COLI</i> RNA POLYMERASE, <i>Akira Ishihama</i>	499
BACTERIAL VIRULENCE GENE REGULATION: AN EVOLUTIONARY PERSPECTIVE, <i>Peggy A. Cotter and Victor J. DiRita</i>	519
LEGIONELLA PNEUMOPHILA PATHOGENESIS: A FATEFUL JOURNEY FROM AMOBAE TO MACROPHAGES, <i>M. S. Swanson and B. K. Hammer</i>	567
THE DISEASE SPECTRUM OF <i>HELICOBACTER PYLORI</i> : THE IMMUNOPATHOGENESIS OF GASTRODUODENAL ULCER AND GASTRIC CANCER, <i>Peter B. Ernst and Benjamin D. Gold</i>	615
PATHOGENICITY ISLANDS AND THE EVOLUTION OF MICROBES, <i>Jörg Hacker and James B. Kaper</i>	641
DNA SEGREGATION IN BACTERIA, <i>Gideon Scott Gordon and Andrew Wright</i>	681
POLYPHOSPHATE AND PHOSPHATE PUMP, <i>I. S. Kulaev and T. Kulakovskaya</i>	709
ASSEMBLY AND FUNCTION OF TYPE III SECRETORY SYSTEMS, <i>Guy R. Cornelis and Frédérique Van Gijsegem</i>	735
PROTEINS SHARED BY THE TRANSCRIPTION AND TRANSLATION MACHINES, <i>Cathy L. Squires and Dmitry Zaporojets</i>	775
HOLINS: THE PROTEIN CLOCKS OF BACTERIOPHAGE INFECTIONS, <i>Ing-Nang Wang, David L. Smith, and Ry Young</i>	799
OXYGEN RESPIRATION BY DESULFOVIBRIO SPECIES, <i>Heribert Cypionka</i>	827
REGULATION OF CARBON CATABOLISM IN <i>BACILLUS</i> SPECIES, <i>J. Stülke and W. Hillen</i>	849
IRON METABOLISM IN PATHOGENIC BACTERIA, <i>Colin Ratledge and Lynn G. Dover</i>	881
INDEXES	
Subject Index	943
Cumulative Index of Contributing Authors, Volumes 50-54	989
Cumulative Index of Chapter Titles, Volumes 50-54	993